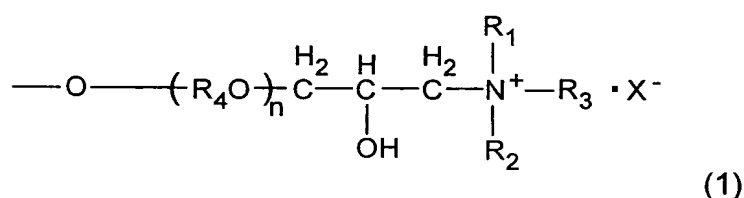


Claims

1. A cation-modified purified galactomannan polysaccharide prepared by partially substituting hydroxyl groups of a purified galactomannan polysaccharide with a quaternary nitrogen-containing group of Formula (1), the purified galactomannan polysaccharide being prepared by purified a crude galactomannan polysaccharide, comprising a main chain composed of mannose units and a side chain composed of galactose units, and containing 80 wt% of galactomannan:



(where R_1 and R_2 each independently represent an alkyl group having 1 to 3 carbon atoms; R_3 represents an alkyl group having 1 to 24 carbon atoms; X^- represents an anion; n is either 0 or 1 to 30; and, when n is 1 to 30, $(\text{R}_4\text{O})_n$ represents a polymer residue of an alkylene oxide having 2 to 4 carbon atoms and forms a polyalkylene glycol chain composed of a single alkylene oxide and/or a polyalkylene glycol chain composed of two or more types of alkylene oxide), wherein the cation charge density derived from the quaternary nitrogen-containing group is in the range of 0.1 to 3.0 meq/g.

2. The cation-modified purified galactomannan polysaccharide according to claim 1, wherein an aqueous solution of the purified galactomannan polysaccharide containing 80 wt% or more of galactomannan forms a gel with an aqueous solution of xanthan gum and/or carrageenan.

3. The cation-modified purified galactomannan polysaccharide according to claim 1 or 2, wherein the purified galactomannan polysaccharide containing 80 wt% or more of galactomannan comprises amino chain composed of mannose and a side chain composed of galactose units and has a mannose to galactose ratio of 4:1.
4. The cation-modified galactomannan purified polysaccharide according to one of claims 1 to 3, wherein the purified galactomannan polysaccharide having a mannose to galactose ratio of 4:1 is a natural water-soluble gum obtained from albumens of seeds of locust bean (*Ceratonia Siliqua*), which is a perennial leguminous plant.
5. The cation-modified purified galactomannan polysaccharide according to claim 1 or 2, wherein the purified galactomannan polysaccharide containing 80 wt% or more of galactomannan comprises amino chain composed of mannose and a side chain composed of galactose units and has a mannose to galactose ratio of 3:1.
6. The cation-modified purified galactomannan polysaccharide according to claim 1, 2, or 5, wherein the purified galactomannan polysaccharide has a mannose to galactose ratio of 3:1 and is a natural water-soluble gum obtained from albumens of seeds of tara (*Caesalpinia Spinosa*), a leguminous plant.
7. The cation-modified purified galactomannan polysaccharide according to any one of claims 1 to 6, wherein the substitution of the hydroxyl groups in the purified galactomannan polysaccharide with the quaternary nitrogen-containing group is carried out through a reaction between galactomannan polysaccharide and one of a glycidyltrialkyl ammonium salt and a 3-halogeno-2-hydroxy-

propyltrialkyl ammonium salt.

8. The cation-modified purified galactomannan polysaccharide according to any one of claims 1 to 7, wherein cation-modification of the purified galactomannan polysaccharide is conducted by adding an alkylene oxide having 2 to 4 carbon atoms to part of hydroxyl groups in the purified galactomannan polysaccharide, followed by substitution with a glycidyltrialkyl ammonium salt or a 3-halogeno-2-hydroxypropyltrialkyl ammonium salt functioning as a cationic modifier.

9. A cosmetic composition comprising the cation-modified galactomannan purified polysaccharide according to one of claims 1 to 8.

10. The cosmetic composition according to claim 9, wherein the content of the cation-modified purified galactomannan polysaccharide according to one of claims 1 to 8 is 0.05 to 5 wt% relative to 100 wt% of the entire composition.

11. The cosmetic composition according to claim 9 or 10, further comprising less than 5 wt% of a cationic water-soluble polymer and/or an amphoteric water-soluble polymer relative to 100 wt% of the entire composition.

12. The cosmetic composition according to one of claims 9 to 11, further comprising an amideamine compound, a neutralizing agent such as an organic acid and/or an inorganic acid, a higher fatty acid, and/or a higher alcohol.

13. The cosmetic composition according to one of claims 9 to 12, further comprising silicone.

14. A hair treatment composition comprising the cosmetic composition according to one of claims 9 to 13.